

Attorney Docket 103



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Patent Application:

Applicant: Joseph J. Solon

ART UNIT 3724

S.N. 10/005,696

EXAMINER ISAAC H. HAMILTON

Filed: Dec. 7, 2001

ON APPEAL

TITLE: METHODS AND APPARATUS FOR PROCESSING RECLAIMED
TIRE TREAD STRIPS

To The Commissioner of Patents and Trademarks:

Dear Sir:

AMENDED APPEAL BRIEF under 37 CFR 1,192

In response to the Notification of Non-Compliance dated Jan. 14, 2004, Applicant timely responds by submitting three copies of the Amended Appeal Brief, which implicitly includes the required corrections and accompanying explanations.

Applicant appeals the rejection of Claims 10 and 12 and requests that Claims 11, 14, 15 and 18 all dependent upon generic Claim 10 and withdrawn as directed to non-elected species, to be allowed if Generic Claim 10 is allowed.

(1) Real party in interest.

The real party in interest is the assignee Interstate Recycling Corp., 107 South Street, Auburn, NY 13021, a corporation of Nevada. Assignment recorded Feb. 21, 2002, REEL/FRAME: 012595/0496.

(2) Related appeals and interferences.

There are no related appeals or interferences.

(3) Status of claims.

At the time of the Final Rejection:

Withdrawn Claims 1-9 were cancelled.

Claims 13 and 16 were cancelled.

Claim 17 is herewith cancelled to reduce issues on appeal.

The Final Rejection of the remaining Claims 10, 11, 12, 14, 15 and 18, identified in Appendix (9), are herewith appealed. Claims 10 and 12 are rejected, and Claims 11, 14, 15, and 18 were withdrawn from consideration as non-elected species claims.

Thus claims 11, 14, 15 and 18 are retained as allowable species claims if generic parent Claim 10 is allowed.

Claims 10 and 12 are shown to be allowable hereinafter.

In Section 7 of the Final Rejection, Claims 10 and 12 are rejected as anticipated by Schoendelen 1, 578,854 under 35 USC 102(b) and Claim 11 is rejected as a non-elected Claim..

Claims 11, 14, 15 and 18, dependent upon parent Claim 10, are directed to the non-elected Species of Figures 5 and 6 and are thus properly retained and asserted as patentably dependent upon allowable generic Claim 10, if Claim 11 is allowed.

(4) Status of amendments.

The first response after Final Rejection, filed Aug .4, 2003, was not entered (Advisory Action of Aug. 15, 2003).

The second response after Final Rejection, filed Aug. 18, 2003, was not entered (Advisory Action of Sept 18, 2003)

(5) Summary of invention.

This invention provides a simplified specialty hand fed tire tread strip cutting and edge trimming machine 12 for producing a narrower tire tread strip end product from a raw rectangular raw tire tread strip 10 having two shorter ends and two longer sides which is cut from salvaged tire carcasses. This trimming machine cuts off the edge portions of the raw tread strip along the entire strip length to produce a narrower reshaped rectangular tread strip end product 15 having precision width and suitable for stacking on

top of each other to form beams in one embodiment, p. 3, last full paragraph and Figs. 1 and 2.

Steel belted tire strips present serious difficulties in handling and cutting cleanly through the tread strip thickness because of the toughness and accompanying flexibility of the tire fabric and the embedded steel wires as clearly defined in the rejected claims. The cited Schoendelen reference does not address this problem but conversely processes only tin plate strips from which can tops are produced.

Applicant resolves this problem of processing tire tread strips from steel belted tires by hand feeding the tire tread strips at a single tire tread strip cutting machine station, which grasps manually fed strips (last line, p.8) with a set of rotating cutting wheels 17, 18 (Fig. 1) spaced inside opposite longitudinal edges of the raw strip 10 at positions determining the width of the processed narrower strip 15. Accompanying biased together strip pulling rollers 30, 31 having knurled grasping surfaces 33 (Fig.5) pull the raw strip through the transit path of the tire tread strips at the single processing station in the manner illustrated in Figs. 1, 3 and 5.

Other tread strip shaping in addition to the cutting of narrower strips such as punching holes in the processed tire tread strip is done as illustrated when the roller dies 36, 37 (p. 7, last paragraph through second paragraph p.8), cut through the tire tread strip and embedded steel wires at sequential positions along the length of the tire tread strip as it is pulled through its transit path at the cutter station. Similarly the outer edges of the tire tread strips are indented by edge cutter dies in one of the grasping rollers as

illustrated in Fig. 5. These cutting/ shaping devices resolve the difficult task of cleanly cutting (a) apertures through the thick, tough flexible tire tread fabric having the embedded steel wires as the tire tread strip is pulled through the single cutter station, which thus produces apertures along the length of the processed narrower strip having a precisely defined width and (b) cutting edge indentations along the length of the tire tread strip for relaxing (44 Fig. 5) the tire tread strips which otherwise curve because of the residual memory bias inherited from the toroidal tire carcass shape and thus do not lie flat. The tire tread strip (15) will relax and tend to lie flat with indentions in the outer strip edges. .

Another such desirable strip cutter operable on the tire tread strip on its transit path through the cutter wheels 17, 18 is the tread thickness knife 42 (Fig. 6) which produces processed tire tread strips of constant thickness.

It is noted that both Figure 2 and Figure 5 are related end views looking into the single strip feeder width slitter station (40), and that Figures 1 and 6 define the slitter station features.

Parent Claim 10 encompasses the edge trimmer, grasping means, transit path and the various strip cutting and shaping means incorporated in all six figures and thus is generic to the features defined in dependent Claims 11, 12, 14, 15 and 18.

(6) Issues.

The following reversible errors of the Examiner are herewith taken in issue:

I. The rejection of Claims 10 and 12 under 35 USC 102(b) as being anticipated by Schoendelen 1,578,854.

I. a. The Examiner's mis-interpretation of the Schoendelen disclosure.

I. b. The Examiner's error in assertion that applicant's claimed "tread strips salvaged from tire carcasses" is shown in Fig. 3 of Schoendelen. Note in this respect that apparatus for processing strips is claimed and not a "tin plate".

I. c. The Examiner's aggregative rejection of Claims 10 and 12 on isolated features of the Schoendelen disclosure, without considering the interaction of claimed features in combination in a novel tread strip to produce an entirely different output product which requires removing edge portions (or apertures) in the tire tread strip of thick, rugged and resilient raw steel belted tire tread stock to produce a narrower strip of precise width along the entire length of the tire tread strips being processed as the end product.

II. The auxiliary issue of allowance of (non-elected) Claims 11, 14, 15 and 18 in view of the presentation of allowable generic Claim 10.

III. The 35 USC 103(a) rejection of Claim 17 is moot in view of cancellation of Claim 17 herewith to reduce issues on appeal.

(7) Grouping of claims.

Claims 10 and 12 are not grouped and they are considered separately by the Examiner.

However, each of the remaining claims 11, 12, 14, 15, and 18, withdrawn as directed to non-elected species, are dependent upon generic Claim 10. Thus applicant is entitled to claim such species claims if Claim 10 is allowed. Claims 10, 11, 12, 14, 15 and 18 are therefore considered as a group.

(8) Arguments.

I. a. The Schoendelen Disclosure:

A special purpose machine system uses two stations (punch 18 for producing can tops from a tin sheet and tin sheet slitter knives 49). The slitter knives serve at an independent station to change the form of the waste product after punching out can tops.

The Schoendelen machine system transports thin rectangular tin plates carried by an extensive conveyance system including conveyor belt 29 respectively to punch out a set of can ends 62, Fig. 3. and remove a plurality of flimsy scrap portions 61 between the ends of a central row of holes 62 at two different processing stations. . There is no teaching whatsoever of removing opposite edges of a raw tire tread strip to produce from applicant's raw tire tread strip 10 an integral narrower central strip 15 as the useful output product.

Nor are there any teachings whatsoever of hand feeding the tin strip into a single cutting station or processing a thick, tough resilient tire tread strip having embedded steel wires that must be cleanly cut.

The reference conversely teaches an automatic feeding device to avoid transfer of the sheet by hand from the punching press station. Thus only applicant teaches and claims a single cutter station where hand fed raw tire tread strip 10 is grasped by the cutting wheels 17, 18 which remove the center-most narrower tire tread strip 15 as a completely different end product than Schoendeler's cut up tin strip waste after the can tops are punched.

Accordingly the objective and structure of the Schoendelen waste removing slitter apparatus cannot anticipate the combinations of interacting elements defined in the various rejected claims.

I. b. The Examiner reversibly errs by designating as sheet material both the tin plate 26 having three rows of apertures of Schoendelen Fig. 3 and applicant's claimed tire tread strip in Claim 10 and thus giving no weight to applicant's explicitly claimed tire tread strips.

Applicant claims rectangularly shaped tread strips salvaged from tire carcasses. The Examiner has not in any way shown that the Schoendelen machinery for cutting sheets of tin plate to make can ends could operably transport, punch and remove outer longitudinal edges of the explicitly claimed tough flexible wire embedded tire tread strips

cut from abandoned tire carcasses or achieve the precise cutting of the steel wires embedded in the thick tough and flexible tire tread stock.

I. c. The Examiner reversibly errs in aggregatively rejecting claimed combinations of interacting elements for achieving a different output objective by isolating random features of Schoendelen taken out of context and neglecting to show how the claimed combinations as a whole are anticipated.

Using parent Claim 10, for example:

(1) the Schoendeler apparatus does not structurally provide a combination of interacting elements to produce a useful end product of a narrower tire tread strip 15 extending along the two longer sides to produce a narrower strip between two shorter ends of the raw wider tire tread strip 10. Note that in Schoendelen's apparatus the cutting means structure cuts up the tin plate having can tops removed therefrom as scrap. ges of a wider raw tire tread strip 10.

(2) applicant's feeder means and associated grasping means comprising cutter wheels 17, 18 which grasp the shorter ends of the hand fed tire tread strips whereas conversely Schoendeler's slitter apparatus avoids hand feeding of the tin strips by using conveyor belt 29 to feed the strips into the slicing wheels 49, 51; and

(3) applicant produces a (single) narrower rectangular shaped (tire tread) strip along the two longer between said two claimed shorter ends (of the tire tread strips) as the centermost portion of a wider raw tire tread strip and discards the removed tread strip portions along the two outer sides contrary to Schoendeler's teachings.

Accordingly there is no prima facie showing of anticipation of applicant's combination claims as a whole in the Schoendeler disclosure. Contrariwise the Schoendeler apparatus and end product is aggregatively distorted by the Examiner to reject theoretic combinations of interacting elements from Schoendeler and a different output product by isolating random features of Schoendeler taken out of context to simulate applicant's claimed combination.

In Claim 12, the strip shaping means of Parent Claim 10, removes (tire) tread strip portions along the two longer sides to produce a narrower rectangular shaped strip between the shorter ends. Claim 12 interprets such shaping means to comprise two sequential shaping devices for shaping the tread strips in different ways at two sequential stations along the strip transit path through the slitter station.. In Figs. 5 and 6 applicant teaches these different ways to be explicitly (a) length cutting, (b) thickness cutter knife, (c) punch/indenter, and (d) fabric relaxer means (for producing indentions in the tread strips- last sentence of the Abstract). Schoendeler fails to teach more than simply slicing the tin sheet residue into smaller pieces of unwanted trash.

Schoendeler's tin plate is not a fabric and there is no teaching for relaxing the tin plate. Schoendeler's tin plate has no change of thickness, which would not be meaningful in his disclosed tin plate for making can ends.

Parent Claim 10 defines the strip transit path in which the different shaping devices are found to follow the strip feeder means for grasping one shorter end of the tread strips. Thus the structure defined is not anticipated when the Examiner's rejection

ground includes the punching means 18, 22 preceding the grasping wheels 49, 51.

Thus reversal of the Examiner with allowance of Claims 10 and 12 is solicited and allowance of the species claims 11, 14, 15, and 18 depending upon the generic Claim 10.

SUMMARY

It has been shown that Schoendelen 1,578,854 does not disclose the structure required to anticipate the whole combinational interacting set of elements defined in Claims 10 and 12 rejected under 35 USC 102(b), and that the Examiner has made reversible errors in the application of isolated claim elements selected from that reference in an environment out of context with applicant's claimed combinations as a whole.

For example, the Examiner has rejected these claims explicitly claiming the structure of applicant's tire tread strips cut from an abandoned tire carcass as anticipated by the entirely different structure of the Schoendelen Fig. 3 apertured tin plate 26 having three rows of can tops 52 cut therefrom. And furthermore the Examiner fails to consider for example the apparatus of interacting elements of Claims 10 and 11 as a whole wherein the problems of (a) cutting and shaping the tough, resilient and thick tire tread fabric embedded with steel wires and of (b) making a tire tread strip retaining the inherent memory of a curved tire carcass thus tending to lie in a curved posture to lie flat are

resolved respectively.

Furthermore the Examiner erroneously applies Schoendelen's apparatus, that with conveyor 29 avoids hand feeding of his thin tin plate apertured work strip by hand, to anticipate applicant's combination of interacting elements for hand feeding the raw tire tread strip 10 for cutting off edges along its length to produce the narrower output tire tread strip 15.

Further evidence of reversible error of the Examiner in aggregatively applying out of context Schoendelen features without consideration of applicant's claimed combinations of interacting elements as a whole is that the end product of the Schoendelen cutting apparatus is to remove the centermost located scrap portions 61 by cutting off the outer edges, whereas applicant's end product is the narrower centermost strip remaining after the outer edges are cut off.

Accordingly applicant has fully overcome the 35 USC 102(b) rejection ground and thus patentably presents rejected claims 10-12 for allowance by reversal of the Examiner.

II. The auxiliary issue of allowance of (non-elected) claims 11, 14, 15 and 18.

Based upon the allowance of generic parent claim 10, the claims 11, 14, 15 and 18 directed to the non-elected species of Fig. 5 are properly allowable and allowance is respectfully solicited.


III. Claim 17 rejected under 35 USC 103(a)

Claim 17 is cancelled herewith to reduce issues and thus this rejection ground is not in issue.

CONCLUSION

Applicant has herein fully overcome the 35 USC 102(b) rejection of Claims 10 and 12.. Thus allowance of generic Claim 10 is merited. Thus Applicant is entitled to the allowance of the species claims 11, 14, 15 and 18 as a group not anticipated by Schoendelen, and thus respectfully solicits that these additional claims be allowed.

Respectfully submitted,

 Jan. 28, 2004

Laurence R. Brown, Counsel of Record

Enc. Two additional copies of the brief with Appended Claims

(9) Appendix

Claims on appeal:

10. Apparatus for processing substantially rectangular shaped tread strips salvaged from tire carcasses having two shorter ends and two longer sides to obtain patterned strips of precise dimension and shape comprising in combination: power actuated strip feeder means for grasping one shorter end of the tread strips and passing them through a linear transit path, and strip shaping means along the transit path operable during transit of the strips through said linear transit path to remove tread strip portions along the two longer sides to produce a narrower rectangular shaped strip between said two shorter ends.

11. The apparatus of Claim 10 wherein the strip shaping means further comprises means for providing tread strips of uniform width from said rectangular shaped tread strips with indentation means operable at designated spacings near opposite edges of raw input tread strips as the strips pass through the transit path for indenting edges between said two shorter ends and producing longitudinal strip edges with relaxed tension thereby encouraging the narrower strip to lie flat.

12. Apparatus defined in Claim 10 wherein the strip shaping means comprises two sequential shaping devices for shaping the tread strips in different ways at two sequential stations along the strip transit path.

14. Apparatus as defined in Claim 10 wherein the shaping means comprises indentation means for introducing a set of longitudinally spaced indentation patterns extending along the longer sides of the tread strips.

15. The apparatus of Claim 14 wherein said tread strips have a tread surface and a surface opposite to the tread surface and wherein said indentation patterns comprise indentations in the surface of the tread strip opposite to the tread.

17. (Cancelled Currently)

18. Apparatus defined in Claim 10 wherein the shaping means comprises means for removing tread surface from the tread strip to establish tread strips of uniform thickness.